



IFWO

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/645,723A

DATE: 08/23/2004
TIME: 16:36:25

Input Set : A:\PHOE0136.ST25.txt
Output Set: N:\CRF4\08232004\J645723A.raw

3 <110> APPLICANT: Ensor, Charles Mark
4 Holtsberg, Frederick Wayne
5 Clark, Mike A.
7 <120> TITLE OF INVENTION: NOVEL MUTATED FORM OF ARGININE DEIMINASE
9 <130> FILE REFERENCE: PHOE-0136
11 <140> CURRENT APPLICATION NUMBER: US 10/645,723A
12 <141> CURRENT FILING DATE: 2003-08-21
14 <150> PRIOR APPLICATION NUMBER: US 09/564,559
15 <151> PRIOR FILING DATE: 2000-05-04
17 <160> NUMBER OF SEQ ID NOS: 10
19 <170> SOFTWARE: PatentIn version 3.2
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 409
23 <212> TYPE: PRT
24 <213> ORGANISM: Mycoplasma hominis
26 <400> SEQUENCE: 1
28 Met Ser Val Phe Asp Ser Lys Phe Asn Gly Ile His Val Tyr Ser Glu
29 1 5 10 15
32 Ile Gly Glu Leu Glu Thr Val Leu Val His Glu Pro Gly Arg Glu Ile
33 20 25 30
36 Asp Tyr Ile Thr Pro Ala Arg Leu Asp Glu Leu Leu Phe Ser Ala Ile
37 35 40 45
40 Leu Glu Ser His Asp Ala Arg Lys Glu His Gln Ser Phe Val Lys Ile
41 50 55 60
44 Met Lys Asp Arg Gly Ile Asn Val Val Glu Leu Thr Asp Leu Val Ala
45 65 70 75 80
48 Glu Thr Tyr Asp Leu Ala Ser Lys Ala Ala Lys Glu Glu Phe Ile Glu
49 85 90 95
52 Thr Phe Leu Glu Glu Thr Val Pro Val Leu Thr Glu Ala Asn Lys Lys
53 100 105 110
56 Ala Val Arg Ala Phe Leu Leu Ser Lys Pro Thr His Glu Met Val Glu
57 115 120 125
60 Phe Met Met Ser Gly Ile Thr Lys Tyr Glu Leu Gly Val Glu Ser Glu
61 130 135 140
64 Asn Glu Leu Ile Val Asp Pro Met Pro Asn Leu Tyr Phe Thr Arg Asp
65 145 150 155 160
68 Pro Phe Ala Ser Val Gly Asn Gly Val Thr Ile His Phe Met Arg Tyr
69 165 170 175
72 Ile Val Arg Arg Glu Thr Leu Phe Ala Arg Phe Val Phe Arg Asn
73 180 185 190
76 His Pro Lys Leu Val Lys Thr Pro Trp Tyr Tyr Asp Pro Ala Met Lys
77 195 200 205
80 Met Pro Ile Glu Gly Asp Val Phe Ile Tyr Asn Asn Glu Thr Leu



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81 210 215 220
 84 Val Val Gly Val Ser Glu Arg Thr Asp Leu Asp Thr Ile Thr Leu Leu
 85 225 230 235 240
 88 Ala Lys Asn Ile Lys Ala Asn Lys Glu Val Glu Phe Lys Arg Ile Val
 89 245 250 255
 92 Ala Ile Asn Val Pro Lys Trp Thr Asn Leu Met His Leu Asp Thr Trp
 93 260 265 270
 96 Leu Thr Met Leu Asp Lys Asn Lys Phe Leu Tyr Ser Pro Ile Ala Asn
 97 275 280 285
 100 Asp Val Phe Lys Phe Trp Asp Tyr Asp Leu Val Asn Gly Gly Ala Glu
 101 290 295 300
 104 Pro Gln Pro Gln Leu Asn Gly Leu Pro Leu Asp Lys Leu Leu Ala Ser
 105 305 310 315 320
 108 Ile Ile Asn Lys Glu Pro Val Leu Ile Pro Ile Gly Gly Ala Gly Ala
 109 325 330 335
 112 Thr Glu Met Glu Ile Ala Arg Glu Thr Asn Phe Asp Gly Thr Asn Tyr
 113 340 345 350
 116 Leu Ala Ile Lys Pro Gly Leu Val Ile Gly Tyr Asp Arg Asn Glu Lys
 117 355 360 365
 120 Thr Asn Ala Ala Leu Lys Ala Ala Gly Ile Thr Val Leu Pro Phe His
 121 370 375 380
 124 Gly Asn Gln Leu Ser Leu Gly Met Gly Asn Ala Arg Cys Met Ser Met
 125 385 390 395 400
 128 Pro Leu Ser Arg Lys Asp Val Lys Trp
 129 405
 132 <210> SEQ ID NO: 2
 133 <211> LENGTH: 409
 134 <212> TYPE: PRT
 135 <213> ORGANISM: Mycoplasma hominis
 137 <400> SEQUENCE: 2
 139 Met Ser Val Phe Asp Ser Lys Phe Asn Gly Ile His Val Tyr Ser Glu
 140 1 5 10 15
 143 Ile Gly Glu Leu Glu Thr Val Leu Val His Glu Pro Gly Arg Glu Ile
 144 20 25 30
 147 Asp Tyr Ile Thr Pro Ala Arg Leu Asp Glu Leu Leu Phe Ser Ala Ile
 148 35 40 45
 151 Leu Glu Ser His Asp Ala Arg Lys Glu His Gln Ser Phe Val Lys Ile
 152 50 55 60
 155 Met Lys Asp Arg Gly Ile Asn Val Val Glu Leu Thr Asp Leu Val Ala
 156 65 70 75 80
 159 Glu Thr Tyr Asp Leu Ala Ser Lys Ala Ala Lys Glu Glu Phe Ile Glu
 160 85 90 95
 163 Thr Phe Leu Glu Glu Thr Val Pro Val Leu Thr Glu Ala Asn Lys Glu
 164 100 105 110
 167 Ala Val Arg Ala Phe Leu Leu Ser Lys Pro Thr His Glu Met Val Glu
 168 115 120 125
 171 Phe Met Met Ser Gly Ile Thr Lys Tyr Glu Leu Gly Val Glu Ser Glu
 172 130 135 140
 175 Asn Glu Leu Ile Val Asp Pro Met Pro Asn Leu Tyr Phe Thr Arg Asp

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176 145 150 155 160
 179 Pro Phe Ala Ser Val Gly Asn Gly Val Thr Ile His Phe Met Arg Tyr
 180 165 170 175
 183 Ile Val Arg Arg Arg Glu Thr Leu Phe Ala Arg Phe Val Phe Arg Asn
 184 180 185 190
 187 His Pro Lys Leu Val Lys Thr Pro Trp Tyr Tyr Asp Pro Ala Met Lys
 188 195 200 205
 191 Met Pro Ile Glu Gly Gly Asp Val Phe Ile Tyr Asn Asn Glu Thr Leu
 192 210 215 220
 195 Val Val Gly Val Ser Glu Arg Thr Asp Leu Asp Thr Ile Thr Leu Leu
 196 225 230 235 240
 199 Ala Lys Asn Ile Lys Ala Asn Lys Glu Val Glu Phe Lys Arg Ile Val
 200 245 250 255
 203 Ala Ile Asn Val Pro Lys Trp Thr Asn Leu Met His Leu Asp Thr Trp
 204 260 265 270
 207 Leu Thr Met Leu Asp Lys Asn Lys Phe Leu Tyr Ser Pro Ile Ala Asn
 208 275 280 285
 211 Asp Val Phe Lys Phe Trp Asp Tyr Asp Leu Val Asn Gly Gly Ala Glu
 212 290 295 300
 215 Pro Gln Pro Gln Leu Asn Gly Leu Pro Leu Asp Lys Leu Leu Ala Ser
 216 305 310 315 320
 219 Ile Ile Asn Lys Glu Pro Val Leu Ile Pro Ile Gly Gly Ala Gly Ala
 220 325 330 335
 223 Thr Glu Met Glu Ile Ala Arg Glu Thr Asn Phe Asp Gly Thr Asn Tyr
 224 340 345 350
 227 Leu Ala Ile Lys Pro Gly Leu Val Ile Gly Tyr Asp Arg Asn Glu Lys
 228 355 360 365
 231 Thr Asn Ala Ala Leu Lys Ala Ala Gly Ile Thr Val Leu Pro Phe His
 232 370 375 380
 235 Gly Asn Gln Leu Ser Leu Gly Met Gly Asn Ala Arg Cys Met Ser Met
 236 385 390 395 400
 239 Pro Leu Ser Arg Lys Asp Val Lys Trp
 240 405
 243 <210> SEQ ID NO: 3
 244 <211> LENGTH: 409
 245 <212> TYPE: PRT
 246 <213> ORGANISM: Mycoplasma hominis
 248 <400> SEQUENCE: 3
 250 Met Ser Val Phe Asp Ser Lys Phe Asn Gly Ile His Val Tyr Ser Glu
 251 1 5 10 15
 254 Ile Gly Glu Leu Glu Thr Val Leu Val His Glu Pro Gly Arg Glu Ile
 255 20 25 30
 258 Asp Tyr Ile Thr Pro Ala Arg Leu Asp Glu Leu Leu Phe Ser Ala Ile
 259 35 40 45
 262 Leu Glu Ser His Asp Ala Arg Lys Glu His Gln Ser Phe Val Lys Ile
 263 50 55 60
 266 Met Lys Asp Arg Gly Ile Asn Val Val Glu Leu Thr Asp Leu Val Ala
 267 65 70 75 80
 270 Glu Thr Tyr Asp Leu Ala Ser Lys Ala Ala Lys Glu Glu Phe Ile Glu

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271 85 90 95
 274 Thr Phe Leu Glu Glu Thr Val Pro Val Leu Thr Glu Ala Asn Lys Lys
 275 100 105 110
 278 Ala Val Arg Ala Phe Leu Leu Ser Lys Pro Thr His Glu Met Val Glu
 279 115 120 125
 282 Phe Met Met Ser Gly Ile Thr Lys Tyr Glu Leu Gly Val Glu Ser Glu
 283 130 135 140
 286 Asn Glu Leu Ile Val Asp Pro Met Pro Asn Leu Tyr Phe Thr Arg Asp
 287 145 150 155 160
 290 Pro Phe Ala Ser Val Gly Asn Gly Val Thr Ile His Phe Met Arg Tyr
 291 165 170 175
 294 Ile Val Arg Arg Arg Glu Thr Leu Phe Ala Arg Phe Val Phe Arg Asn
 295 180 185 190
 298 His Pro Lys Leu Val Lys Thr Pro Trp Tyr Tyr Asp Pro Ala Met Lys
 299 195 200 205
 302 Met Ser Ile Glu Gly Gly Asp Val Phe Ile Tyr Asn Asn Glu Thr Leu
 303 210 215 220
 306 Val Val Gly Val Ser Glu Arg Thr Asp Leu Asp Thr Ile Thr Leu Leu
 307 225 230 235 240
 310 Ala Lys Asn Ile Lys Ala Asn Lys Glu Val Glu Phe Lys Arg Ile Val
 311 245 250 255
 314 Ala Ile Asn Val Pro Lys Trp Thr Asn Leu Met His Leu Asp Thr Trp
 315 260 265 270
 318 Leu Thr Met Leu Asp Lys Asn Lys Phe Leu Tyr Ser Pro Ile Ala Asn
 319 275 280 285
 322 Asp Val Phe Lys Phe Trp Asp Tyr Asp Leu Val Asn Gly Gly Ala Glu
 323 290 295 300
 326 Pro Gln Pro Gln Leu Asn Gly Leu Pro Leu Asp Lys Leu Leu Ala Ser
 327 305 310 315 320
 330 Ile Ile Asn Lys Glu Pro Val Leu Ile Pro Ile Gly Gly Ala Gly Ala
 331 325 330 335
 334 Thr Glu Met Glu Ile Ala Arg Glu Thr Asn Phe Asp Gly Thr Asn Tyr
 335 340 345 350
 338 Leu Ala Ile Lys Pro Gly Leu Val Ile Gly Tyr Asp Arg Asn Glu Lys
 339 355 360 365
 342 Thr Asn Ala Ala Leu Lys Ala Ala Gly Ile Thr Val Leu Pro Phe His
 343 370 375 380
 346 Gly Asn Gln Leu Ser Leu Gly Met Gly Asn Ala Arg Cys Met Ser Met
 347 385 390 395 400
 350 Pro Leu Ser Arg Lys Asp Val Lys Trp
 351 405
 354 <210> SEQ ID NO: 4
 355 <211> LENGTH: 409
 356 <212> TYPE: PRT
 357 <213> ORGANISM: Mycoplasma hominis
 359 <400> SEQUENCE: 4
 361 Met Ser Val Phe Asp Ser Lys Phe Asn Gly Ile His Val Tyr Ser Glu
 362 1 5 10 15
 365 Ile Gly Glu Leu Glu Thr Val Leu Val His Glu Pro Gly Arg Glu Ile

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366	20	25	30														
369	Asp	Tyr	Ile	Thr	Pro	Ala	Arg	Leu	Asp	Glu	Leu	Leu	Phe	Ser	Ala	Ile	
370	35	40	45														
373	Leu	Glu	Ser	His	Asp	Ala	Arg	Lys	Glu	His	Gln	Ser	Phe	Val	Lys	Ile	
374	50	55	60														
377	Met	Lys	Asp	Arg	Gly	Ile	Asn	Val	Val	Glu	Leu	Thr	Asp	Leu	Val	Ala	
378	65	70	75	80													
381	Glu	Thr	Tyr	Asp	Leu	Ala	Ser	Lys	Ala	Ala	Lys	Glu	Glu	Phe	Ile	Glu	
382	85	90	95														
385	Thr	Phe	Leu	Glu	Glu	Thr	Val	Pro	Val	Leu	Thr	Glu	Ala	Asn	Lys	Glu	
386	100	105	110														
389	Ala	Val	Arg	Ala	Phe	Leu	Leu	Ser	Lys	Pro	Thr	His	Glu	Met	Val	Glu	
390	115	120	125														
393	Phe	Met	Met	Ser	Gly	Ile	Thr	Lys	Tyr	Glu	Leu	Gly	Val	Glu	Ser	Glu	
394	130	135	140														
397	Asn	Glu	Leu	Ile	Val	Asp	Pro	Met	Pro	Asn	Leu	Tyr	Phe	Thr	Arg	Asp	
398	145	150	155	160													
401	Pro	Phe	Ala	Ser	Val	Gly	Asn	Gly	Val	Thr	Ile	His	Phe	Met	Arg	Tyr	
402	165	170	175														
405	Ile	Val	Arg	Arg	Arg	Glu	Thr	Leu	Phe	Ala	Arg	Phe	Val	Phe	Arg	Asn	
406	180	185	190														
409	His	Pro	Lys	Leu	Val	Lys	Thr	Pro	Trp	Tyr	Tyr	Asp	Pro	Ala	Met	Lys	
410	195	200	205														
413	Met	Ser	Ile	Glu	Gly	Gly	Asp	Val	Phe	Ile	Tyr	Asn	Asn	Glu	Thr	Leu	
414	210	215	220														
417	Val	Val	Gly	Val	Ser	Glu	Arg	Thr	Asp	Leu	Asp	Thr	Ile	Thr	Leu	Leu	
418	225	230	235	240													
421	Ala	Lys	Asn	Ile	Lys	Ala	Asn	Lys	Glu	Val	Glu	Phe	Lys	Arg	Ile	Val	
422	245	250	255														
425	Ala	Ile	Asn	Val	Pro	Lys	Trp	Thr	Asn	Leu	Met	His	Leu	Asp	Thr	Trp	
426	260	265	270														
429	Leu	Thr	Met	Leu	Asp	Lys	Asn	Lys	Phe	Leu	Tyr	Ser	Pro	Ile	Ala	Asn	
430	275	280	285														
433	Asp	Val	Phe	Lys	Phe	Trp	Asp	Tyr	Asp	Leu	Val	Asn	Gly	Gly	Ala	Glu	
434	290	295	300														
437	Pro	Gln	Pro	Gln	Leu	Asn	Gly	Leu	Pro	Leu	Asp	Lys	Leu	Leu	Ala	Ser	
438	305	310	315	320													
441	Ile	Ile	Asn	Lys	Glu	Pro	Val	Leu	Ile	Pro	Ile	Gly	Gly	Ala	Gly	Ala	
442	325	330	335														
445	Thr	Glu	Met	Glu	Ile	Ala	Arg	Glu	Thr	Asn	Phe	Asp	Gly	Thr	Asn	Tyr	
446	340	345	350														
449	Leu	Ala	Ile	Lys	Pro	Gly	Leu	Val	Ile	Gly	Tyr	Asp	Arg	Asn	Glu	Lys	
450	355	360	365														
453	Thr	Asn	Ala	Ala	Leu	Lys	Ala	Ala	Gly	Ile	Thr	Val	Leu	Pro	Phe	His	
454	370	375	380														
457	Gly	Asn	Gln	Leu	Leu	Ser	Leu	Gly	Met	Gly	Asn	Ala	Arg	Cys	Met	Ser	Met
458	385	390	395	400													
461	Pro	Leu	Ser	Arg	Lys	Asp	Val	Lys	Trp								
462	405																

VERIFICATION SUMMARY

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